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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/757,121	01/09/2001	Hariprasad Sreedharamurthy	MEMC 99 - 2950 (2702)	6581

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ST LOUIS, MO 63102

EXAMINER

KUNEMUND, ROBERT M

ART UNIT	PAPER NUMBER
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1765

DATE MAILED: 05/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/757,121

Applicant(s)

SREEDHARAMURTHY ET AL

Examiner

Robert M Kunemund

Art Unit

1765

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 March 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,5-9 and 13-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,5-9 and 13-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

Art Unit: 1765

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 9 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Su 1,680,810 in view of Jp 03290393.

The Su 1,680,810 reference teaches an apparatus for czochralski growth. The apparatus consists of a crucible supported by a susceptor. The walls of the crucible and the susceptor are even in height. There is a heater that surrounds the crucible and susceptor. The melt is placed in the crucible and pulled. There is also a ring around the top of the susceptor and crucible, note figure 2. The difference between the instant claims and the prior art is the sealing means. However, the Jp 03290393 reference teaches that a ring that surrounds the top of the susceptor and the crucible as a seal

Art Unit: 1765

note translated abstract. It would have been obvious to one of ordinary skill in the art to modify the Su 1,680,810 apparatus by the teachings of the Jp 03290393 reference to have the ring as a seal in order to prevent impurities from entering the melt.

Claims 5 to 8 and 13 to 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Su 1,680,810 in view of Jp 03290393.

The Su 1,680,810 and Jp 03290393 references are relied on for the same reasons as stated, supra, and differ from the instant claims in the material of construction. However, in the absence of unobvious results, it would have been obvious to one of ordinary skill in the art to determine through routine experimentations the optimum, operable materials of construction in the Su 1,680,810 and Jp 03290393 references in order to have an apparatus, which will be able to withstand the conditions of growth.

Response to Applicants' Arguments

Applicant's arguments filed March 18, 2003 have been fully considered but they are not persuasive.

Applicants' argument concerning claim one is noted. However, the claim merely recites a close contact relationship. The claim is limited to a relationship and does not set forth direct contact as argued. The Kalugin reference clearly teaches the sealing means in contact with the top of the crucible and the susceptor. The sealing means in the reference is in a close contact relationship with the side of the crucible. The Toshiba '393 reference is relied on to show that the ring in the Kalugin reference is considered by one of ordinary skill in the art to be a sealing means. This is the sole reason that the examiner has cited the Toshiba '393 reference. Thus, the combination

teaches that the ring in the Kalugin reference would have been considered by one of ordinary skill in the art to be a sealing ring. Further, the claims only recite an apparatus with a sealing ring. This is what the prior art must show, not reactions or theoretical reactions. Clearly, the two references do teach the claimed apparatus. The fact that applicants have another reasoning for doing what is suggested by the prior art is not demonstrative of unobviousness.

Applicants' argument concerning claim 7 has been considered and not deemed percussive. The use of carbon or graphite in the seed pulling apparatus is well known and within the skill of the art. It is an obvious and well-known material of construction and thus an obvious modification to the cited art.

Applicants' argument concerning claim 9 and 17 is noted. Since, the examiner maintains the rejection of claim 1, the rejections over claims 9 and 17 are maintained for the same reasons.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 1765

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert M Kunemund whose telephone number is 703-308-1091. The examiner can normally be reached on 8 hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ben Utech can be reached on 703-308-3636. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3599 for regular communications and 703-305-3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0651.

RMK
May 30, 2003



ROBERT KUNEMUND
PRIMARY EXAMINER